

CLAIMS

1. A fluid pressure apparatus provided with a fluid pressure pump driven by an electric motor and rotatable in both directions, both ports of a fluid pressure actuator and both ports of the fluid pressure pump being respectively connected through a pair of pipe lines,

wherein a sliding cavity is formed between an outer cylinder and an inner cylinder, the sliding cavity being divided into a preload chamber and a tank chamber by a piston slidably inserted in the sliding cavity,

wherein the tank chamber and the pair of pipe lines are connected through check valves respectively provided in directions so as to allow discharge from the tank chamber, the tank chamber being preloaded with the air pressure introduced into the preload chamber,

and wherein the fluid pressure pump is disposed in the inner cylinder.

2. The fluid pressure apparatus as set forth in claim 1, wherein the fluid pressure pump is a swash plate piston pump.

3. The fluid pressure apparatus as set forth in claim 1 or claim 2, wherein the outer cylinder and the inner cylinder are arranged coaxially with a rotating shaft of the electric motor,

and the outer cylinder and the inner cylinder are mounted on the electric motor.

4. The fluid pressure apparatus as set forth in claim 1 to claim 3, wherein the tank chamber communicates with the inside of the inner cylinder.

5. The fluid pressure apparatus as set forth in claim 1 to claim 4, wherein a top end of the rotating shaft of the electric motor is rotatably supported by a lid member closing one end of the outer cylinder and one end of the inner cylinder.